

December 21, 2007

To the Legislative Council:

Accompanying this letter is the Indiana Economic Development Corporation's 2007 Annual Report to the Indiana General Assembly on the Indiana steel industry.

The Indiana steel industry has reached a position of relative strength and stability after a period of consolidation and restructuring. Nevertheless there are still challenges. Fluctuations in energy costs, increasing prices for raw materials, and intense international competition pose a series of challenges to the United States steel industry, despite the healthy market for steel products from the United States.

Representatives of the steel industry have made several proposals for strengthening Indiana's steel industry and giving it a greater presence abroad. These are addressed in this report and include:

- Designating more of Indiana's roads as "heavy duty highways" to accommodate the transportation of steel to customers and markets.
- Passing through the federal Manufacturers' Deduction for Indiana income tax purposes.

While the specific recommendations of the steel industry must be balanced against many priorities and objectives, it is clear that a business-friendly tax and regulatory environment is necessary for the continued success of Indiana's steel companies. The administration's Major Moves transportation plan, the adoption of the single sales factor corporate income apportionment, and a continued emphasis on responsiveness throughout state provide a favorable climate for Indiana's steel industry to prosper.

This 2007 annual report addresses these and other issues pertinent to the Indiana steel industry.

Regards,

Nathan J. Feltman
Secretary of Commerce

INDIANA STEEL INDUSTRY

2007 ANNUAL REPORT

TO THE INDIANA GENERAL ASSEMBLY

BY THE

INDIANA ECONOMIC DEVELOPMENT CORPORATION

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Introduction

The United States remains the top worldwide steel producer, producing over 100 million tons of steel annually. Steel is the most widely-used structural metal in the auto and building construction industries. Industrial equipment and construction account for 55 percent of the demand of the United States steel industry. As the second-biggest steel producer in the United States, accounting for 22 percent of the nation's base steel production,¹ Indiana is at the heart of much of this production.

Steel-making in the United States is most heavily concentrated in northwest Indiana. Four integrated steel mills and several smaller specialty facilities line up along a 20-mile rim of Lake Michigan in Indiana's extreme northwest. Northwest Indiana employs 261,000 people, 19,000 of whom work in the steel industry. (By contrast, in 1974 Northwest Indiana had 75,000 steel jobs.)

Of the twenty-six companies that operate from the docks at the Clark Maritime Center, half are related to the steel business. Fourteen of the thirty companies that work from the port at Burns Harbor/Portage are related to the steel industry.

In the early 1900's, large quantities of steel were produced in order to meet the mounting construction needs for new homes, new buildings, and railroad tracks. U.S. Steel searched the nation to find a place for a new steel mill and settled upon a site on Lake Michigan. Northwest Indiana was ideal as it provided access to waterways and to railroads. Steel was one of the primary sources of employment and income in Northwest Indiana. The history of such cities as Gary and East Chicago has been directly intertwined with the history of the steel industry. The automotive industry capitalized on the massive production of steel at cheap prices. Indiana became a center of the automotive industry with manufacturers including Studebaker Company, the Cole Motor Car Company, Stutz Company, International Harvester, and many others establishing operations in over forty Indiana cities.

In 1969, steel mill employment accounted for 30 percent of all employment in Northwest Indiana, with a total steel output of \$70.9 billion.² Over the years as competition increased nationally and internationally, the prominence of steel production in Indiana began to decline.

By 1998, steel employment in Northwest Indiana was a mere 8 percent of total employment, with a steel output of \$37.6 billion.

In the early 2000's, major steel manufacturers including Bethlehem, National, and LTV filed for bankruptcy protection. The Indiana steel industry subsequently entered a period of consolidation. While steel mammoths Arcelor Mittal and U.S. Steel have prominence in Northwest Indiana, other steel companies have sprung up throughout Northeast, Central, and Southern Indiana.

¹ Indiana's iron and steel industry combined have an economic impact of \$4.6 billion. "Gary Airport in the Wings," *Chicago Sun Times* (Dec. 20, 2005). http://www.findarticles.com/p/articles/mi_qn4155/is_20051220/ai_n15936583

² Coffin, Donald A. (2003). The State of Steel. [Electronic Version]. *Indiana Business Review*. Spring, Volume 78, Number 1. <http://www.ibrc.indiana.edu>.

Turning to innovation and sophisticated technology, SDI Inc., AK Steel, and Nucor have established profitable niches in the industry.

As competition continues to increase, sustained capital investment is necessary to keep Indiana's steel industry competitive. Although overall employment in this industry may continue its trend downward due to continued technological advancements, the once sharp decline in employment has leveled off. As long as there is a healthy demand for steel, the Indiana steel industry should prosper.

This paper updates our previous review of Indiana's steel industry. IC 5-28-12 provides:

Chapter 12. Steel Industry

Sec. 1. The [Indiana Economic Development Corporation] shall conduct an examination of:

- (1) Indiana and federal statutes, rules, and regulations that either encourage or discourage production and consumption of Indiana steel;
- (2) The problems currently faced by the Indiana steel industry, including foreign competition and the economic climate for the steel industry in Indiana; and
- (3) Any other matters considered relevant to the future of the steel industry in Indiana.

Sec 2. (a) The corporation shall conduct appropriate studies and present an annual report to the legislative council and a summary letter to the general assembly through the legislative council not later than December 1 each year. The report must address the following issues:

- (1) Ways in which the use of Indiana steel can be expanded in Indiana and the world;
- (2) Ways in which any additional problems included in the examination conducted under section 1 of this chapter may be remedied;
- (3) The modification, if any, of state statutes or rules.

This report will follow the organization proposed by the Indiana General Assembly. Accordingly, this report is broken down into the following sections:

- I. Review of Relevant Indiana and Federal Statutes, Rules, and Regulations
- II. Foreign Competition and Economic Climate
- III. Future Outlook of the Indiana Steel Industry

IV. Conclusion

Appendix: Profiles of Current Indiana Steel Companies

Resources

I. Review of Relevant Indiana and Federal Statutes, Rules, and Regulations

Background on Steel Production

There are two main types of steel mills: (1) electric arc furnace and (2) integrated. One of the least costly methods of producing steel is using scrap metal from old cars, appliances, and bridges and melting the scrap in an electric arc furnace, converting it to molten steel. At an integrated mill, iron ore is reduced to molten pig iron and then sent to oxygen furnaces where it is combined with scrap and made into molten steel.³ Although the steel produced by an integrated mill is usually of higher quality, electric arc furnace mills generally require a smaller amount of capital investment. Other participants in the steel industry are companies that convert semi-finished steel into steel wire, pipe, bars, rods, and sheets. Some companies finish the steel for appearance purposes by using paints and chemicals. Others produce alloys by adding silicon or manganese to steel.

Several state and federal statutes, regulations, and policies affect the Indiana steel industry.

Indiana Statutes and Regulations

Corporate Income Tax

Indiana's corporate income tax for companies operating both within and outside of Indiana been based on a formula that considered the Indiana portion of a company's payroll, property, and sales. In 2006, the Indiana legislature amended this apportionment formula. House Enrolled Act 1001 will phase in a new formula over five years that considers only a company's Indiana sales when apportioning corporate income for Indiana tax purposes. The phase began in 2007 and will be fully implemented in 2011.

This policy will make Indiana competitive with sixteen other states that have adopted the single-sales factor. The following states near Indiana have already adopted the single-sales factor: Illinois, Iowa, Minnesota, Missouri, Ohio, and Wisconsin. Michigan apportions corporate tax 95 percent based on sales.

Another tax issue relevant to the Indiana steel industry is the Qualified Production Activities Income deduction, widely referred to as the Manufacturers' Deduction. In 2004, Congress passed

³ For purposes of Indiana tax valuation, an "integrated steel mill" means a person that produces steel by processing iron ore and other raw materials in a blast furnace in Indiana." P.L. 228-2005, Section 2(a)(2).

the American Jobs Creation Act (Public Law 108-357).⁴ Section 199 of that Act creates a federal deduction for income derived from manufacturing activities that take place in the United States. Under federal law, the amount of the deduction grows yearly until it reaches 9 percent in 2010. States have the option of granting a similar deduction for state income tax purposes. Indiana has not yet done so, although all of Indiana's neighboring states have agreed to pass through the deduction to their manufacturers and over 60 percent of states as a whole have adopted such a provision.

Property Tax

Another large cost for the steel industry is property taxes. In 2003, the Indiana legislature passed House Bill 1858 and the state reassessed property values across Indiana. The law permitted companies to depreciate personal business property (equipment) up to 90 percent rather than the previous 70 percent. In exchange, companies gave up the right to claim future "abnormal obsolescence," on which basis they had withheld a large part of their past tax payments. Prior to the passage of H.B. 1858, U.S. Steel's Gary Works was, according to the company, the most highly taxed industrial facility in the country, with \$70 million in annual taxes paid to Lake County. The tax burden was so great that the U.S. Steel was planning to curtail its investment in Gary. Property tax issues are relevant to other industries as well. The BP refinery in Whiting (also in Lake County) paid a higher tax rate there than at any of its five other plants in the country.

Following the passage of H.B. 1858, U.S. Steel announced an investment of \$300 million for a blast furnace in its Gary operation – a move that the corporation probably would not have taken had the prior property tax structure continued. In 2006, BP also announced that it would invest \$3 billion to expand its refinery. It is highly possible that neither investment would have been made if not for H.B. 1858.

H.B. 1858 remains controversial in Lake County because it is blamed for escalating property taxes on individuals.⁵ Public Law 228, enacted in 2005, restricts the property tax valuation provided in H.B. 1858 to equipment in integrated mills that produce steel "in a blast furnace in Indiana." (In contrast, H.B. 1858 covered all steel mills, regardless of whether they had an Indiana blast furnace.) The new law apparently makes H.B. 1858 inapplicable to only one steel mill in Indiana: AK Steel's plant in Spencer County, which has its blast furnace out of state.⁶

Utility Services Use Tax

⁴ For a discussion of this issue, see CCH, "Will states decouple from the AJCA manufacturers' deduction?," State Income Tax Alert (March 15, 2005), p.1. <http://www.grantthornton.com/staticfiles/GTCom/files/services/TaxServices/SALT/State%20Income%20Tax%20Alert%203-15-05.pdf>

⁵ See "Legislators Urge Caution on Lawsuit," Howey Political Report, March 30, 2007.

⁶ An intricate discussion of the financial impact of this statute may be found in the Fiscal Impact Statement filed by the Legislative Services Agency on May 5, 2005, pp. 10-11. See: <http://www.in.gov/legislative/bills/2005/PDF/FISCAL/SB0327.008.pdf>.

IC 6-2.3 establishes the Utility Receipts Tax, which is imposed on sellers of utility services in Indiana.⁷ Until 2006, the tax did not apply to out-of-state providers of utilities that sold services in Indiana.

House Enrolled Act 1001, passed in the 2006 legislative session and now codified as IC 6.23-5.5⁸, created a tax that would apply to Indiana purchases from out-of-state utilities. This law establishes the Utility Services Use Tax “imposed on the retail consumption of utility services in Indiana” (IC 6-2.3-5.5-1). The Utility Services Use Tax was designed to equalize the treatment of Indiana utilities and out-of-state utilities that sold services in Indiana. Companies in northwest Indiana that bought much of their utilities from Illinois providers now have to pay this tax. Although the rate of that tax is 1.4 percent – the same rate as the Utility Receipts Tax – Mittal Steel USA estimates that the tax’s impact on its Indiana operations will be \$10 million/year. Steel Dynamics is also concerned that its Butler, Indiana plant – which is near the Ohio border – will have a similar increase in costs.

This has the effect of increasing costs to Indiana companies for whom it is more practical for them to buy some utility services from outside of Indiana based on their location. This effect could be mitigated if the tax were capped beyond a certain volume of utility usage.

Weight Restrictions on Roads

At one time railroads were integral to moving steel and steel products. Currently, the rail system does not cater to the Indiana steel industry and has major infrastructure weaknesses. Therefore, the Indiana steel industry relies on the road system for transportation. Certain consumers of steel products favor heavier and stronger models of steel. Others prefer to order larger loads (e.g. of uncut coil). Steel companies also wish to minimize the number of trips in transporting steel, particularly when the destination is out of state. Canada, for instance, is an important market for Indiana steel because there are no structural steel producers in Canada.

Indiana Code 9-20-5-2 limits the allowable weight on heavy duty highways in Indiana.

Sec. 2. Whenever the Indiana department of transportation designates a heavy duty highway, the department shall also fix the maximum weights of vehicles that may be transported on the highway. The maximum weights may not exceed the following limitations:

....

(3) The total gross weight, with load, in pounds of a vehicle or combination of vehicles may not exceed eighty thousand (80,000) pounds.

IC 9-20-5-5 (Designation of heavy duty highways) contains additional requirements.

⁷ See <http://www.ai.org/legislative/ic/code/title6/ar2.3/ch1.html> .

⁸ See <http://www.ai.org/legislative/ic/code/title6/ar2.3/ch5.5.html> .

Sec. 3. The Indiana department of transportation may not designate an Indiana highway as a heavy duty highway unless the department determines that the highway is:

(1) so constructed and can be so maintained

(2) in such condition;

that the use of the highway as a heavy duty highway will not materially decrease or contribute materially to the decrease of the ordinary useful life of the highway.

IC 9-105-5 (Maximum size and weight limitations; extra heavy highways) includes the following:

(4) The total gross weight, with load, of any vehicle or combination of vehicles may not exceed one hundred thirty-four thousand (134,000) pounds.

The Indiana Code limits loads on almost all Indiana state roads to a weight limit of 80,000 pounds – which is the same limit applicable to federal highways, including I-69⁹. A few state roads are designated “heavy duty” for accommodating loads up to 134,000 pounds.

The 80,000 pound limit is controversial in the steel industry. Some steel companies cannot access the “heavy duty” roads. Michigan has a grandfathered 164,000 lbs. maximum weight on part of its road system, leaving Indiana at a comparative disadvantage.¹⁰ (On the other side of the equation, in Michigan the high tonnage is taking a toll on the quality and sustainability of its roads.)

In 2004, the Indiana legislature designated a route to Ohio “heavy duty,” primarily to allow Steel Dynamics to use that route. But the State of Ohio prohibits shipments of certain kinds of steel product into the state, including some types that Steel Dynamics manufactures. Steel Dynamics therefore seeks an alternate “heavy duty” route into Michigan. In 2006, the Indiana House passed H.B. 1323, which would have permitted heavy-duty loads on additional Indiana roads, including the Michigan route. But the amended version failed to pass the Indiana Senate.

Competing concerns regarding this issue include the benefits of more lenient weight restrictions to Indiana steel producers and costs associated with greater wear and tear on the road system.

The Legal Complications of Mercury Switches

Many steel manufacturers primarily use electric arc furnace mills or ‘mini mills’. These mills make steel from scrap metal found in junked cars, demolished buildings, and old appliances. Even integrated steel mills use scrap metal, although it is less central to their processing. Mercury switch removal from scrapped vehicles is an issue in the steel industry because scrap metal from cars poses a potential environmental hazard.

⁹ Code of Federal Regulations, Section 658.17(b) (2006). Appendix C to Part 658 provides certain exemptions. <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&%3C?SID%3E&rgn=div5&view=text&node=23:1.0.1.7.32&idno=23#23:1.0.1.7.32.0.1.10>

¹⁰ Heinlein, Gary, “Hefty Trucks Take Toll on State Highways,” *Detroit News*. (October 16, 2005).

Vehicles usually have several components containing mercury: switches (the hood and trunk), sensors, light switches, navigational systems, and anti-lock brakes. Switches are the chief component with mercury, each light switches having an average of one gram of mercury and switches in anti-lock brakes containing 2.4 grams. Estimates are that 2,400 pounds of mercury may enter Indiana's environment annually through scrapped cars alone. The process of shredding the metal, compacting it, and melting it releases mercury into the air, which then precipitates. This process is blamed for, among other things, the continued high mercury content in fish from Lake Michigan. Mercury is highly toxic – so much so that the Indiana Department of Environmental Management has a Mercury Awareness Program.¹¹ Once a car is crushed or shredded, mercury removal is impractical if not impossible. So the mercury must be removed by taking out the switches before the metal is recycled.

The issue for the steel industry is cost. The cost of removal is \$3 per switch. Federal rules that may be imposed relative to mercury emissions may prove expensive for the steel industry. Most steel companies would rather have car companies bear the cost of removing the switches – a suggestion auto manufacturers understandably resist. Some in the steel industry recognize, however, that making auto companies bear the expense might weaken the financial strength of one of the leading buyers of steel. New cars contain an average of \$800 of steel, and half of the steels developed in the past decade were designed to reduce automobile weight, increase auto safety, and lower auto emissions.

The industry advocacy group Steel Manufacturers Association (SMA) supports:¹²

- Eliminating mercury in automobiles and other products used for scrap metal
- Educating and training of scrap suppliers and salvage yards to increase removal rates of mercury-containing materials
- Creating financial incentives to compensate scrap suppliers for mercury removal
- Developing a mechanism to remove mercury or collect switches

Arkansas, Maine, New Jersey, North Carolina, and Rhode Island have bounty programs, a rebate to companies that remove the mercury. In Maine, junkyards and automotive recyclers are required to remove automotive fluids, refrigerants, batteries, and mercury switches within 180 days of arrival. If the vehicle identification number is provided, the state increases the bounty. In New Jersey, a switch removal program cost \$1.5 million for 500,000 vehicles shredded for scrap metal. Pennsylvania adopted a two-year, \$341,000 program to train recyclers and provide incentives for removing mercury. Other states (e.g. Wisconsin, Michigan, and Connecticut) provide guidance on removal, but do not supply incentives.¹³

In 2006, the Indiana legislature passed H.B. 1110, which creates a modified 'bounty' program to recover mercury switches. The bill requires manufactures of vehicles for sale in Indiana to develop and implement a plan to remove, collect, and recycle or dispose of mercury switches. Scrap and salvage yards would have to remove switches from vehicles that have reached the end

¹¹ See http://www.in.gov/idem/your_environment/mercury/map/index.html Also see: http://www.in.gov/idem/your_environment/mercury/

¹² 2005-2006 Public Policy Statement. Steel Manufacturers Association (2005). p. 20.

¹³ Commissioner Easterly's presentation to the EQSC (July 2005).

of their useful life. The party recycling the switch would be paid for the labor involved, with the payment amount to be determined by the Indiana Department of Environmental Management.

Eventually the problem will abate on its own. The auto industry, foreign and domestic, has been phasing out the use of mercury switches since the mid-1990's. United States car manufacturers discontinued the use of mercury switches for new models beginning in 2003,¹⁴ although the problem will take years to diminish significantly.¹⁵

Great Lakes Annex 2001

Steel manufactures must have access to a large supply of water. Water is used to cool the steel after production and to cool the machinery that shapes newly-formed steel. Companies in Northwest Indiana have access to the Great Lakes. Other companies have access to water basins, rivers, etc. The following issue applies to the steel industry on the Great Lakes.

The Great Lakes contain 20 percent of the world's supply of freshwater and 90 percent of the freshwater in the United States. To protect the supply for the future, the Council of Great Lakes Governors has proposed a plan known as Great Lakes Annex 2001. The plan is intended to update the Great Lakes Charter of 1985, which limited diversions of Great Lakes water. The Council is comprised of governors from the eight states bordering the Great Lakes (including Indiana) plus the premiers of the Canadian provinces of Ontario and Quebec. To be binding, all eight states, both Canadian provinces, and Congress must approve the plan. In December 2005, representatives of the executive branches of the states and provinces gave written approval. While two state legislatures have also approved the plan, in no state have both legislatures approved. That approval is necessary for all eight states. Once the state legislatures have approved, Congress must also approve the plan. In Indiana, the plan has yet to be put before the legislature.

This issue is critical for much of Indiana's steel industry because several key facilities (e.g. Gary Works) draw water from Lake Michigan. Moreover the Great Lakes basin extends beyond the lakes. Hence steel companies may be affected even if they are not located directly on the lakes.

The plan would ban diversions of water from the Great Lakes with limited exceptions.¹⁶ Its intent is to protect water from the Great Lakes from being 'raided' by areas outside of the Great Lakes drainage basin. "Diversions" are defined so as not to include "[w]ater that is used in the [Great Lakes] Basin or a Great Lake watershed to manufacture or produce a Product that is then

¹⁴ See the page "Mercury Reduction Program" maintained by the Wisconsin Department of Natural Resources: <http://www.dnr.state.wi.us/org/caer/cea/mercury/program.htm>.

¹⁵ "Mercury in Vehicles Update," Ecology Center (April 2004). http://www.cleancarcampaign.org/Mercury_April_2004.pdf

¹⁶ The draft compact (which would be passed into law) is available at: <http://www.ecobizport.com/AnxCompact111005Draft.pdf>. The corresponding Agreement (which is a good-faith understanding among the states and provinces) is available at: <http://www.ecobizport.com/AnxAgreement111005Draft.pdf>.

transferred out of the Basin or watershed.”¹⁷ Since the steel industry uses water and then transfers the water back to its original source, that use is not considered a diversion. State statutes, federal statutes, congressionally-authorized interstate compacts, and a treaty would all likely be required to put the Great Lakes Annex 2001 into action.

Federal Statutes and Policies

Carbon Dioxide Emissions

Several bills were introduced in Congress in 2007 to lower emissions of carbon dioxide. Some of the legislation targeted manufacturers, including steel makers. The chairman of U.S. Steel noted that the issue could have a profound impact on the U.S. steel industry.¹⁸

Energy

The steel industry relies heavily on electricity and other forms of energy. According to the steel industry, the lack of a coherent federal policy to increase the supply of energy has led to drastically higher energy prices, which have disproportionately raised the operating expenses of steel mills. These cost increases have made the United States steel industry less competitive with the industry in the rest of the world. According to the Steel Manufacturer’s Association (SMA), the entire steel industry spends over \$2 billion/year for electricity.¹⁹ An example of the impact of energy prices on the steel industry is that of Mittal Steel USA. Mittal is North America’s largest buyer of natural gas. Recent price surges have increased Mittal’s costs by \$600 million.

Therefore the steel industry would welcome federal efforts to increase the nation’s energy supply in order to lower production costs and allow the industry to be more internationally competitive.

Tax

According to the World Trade Organization, the United States takes in 16 percent of the world’s total imports.²⁰ The SMA argues that the United States penalizes itself by relying on a direct tax system while other industrial nations (e.g. those in the European Union) have a value-added tax system which can be imposed on imports. SMA favors a tax system in which a firm would pay “a tax only on the net value of goods sold, minus the goods purchased.”²¹ Therefore, a full value-added tax would be imposed on imported goods on entry to the United States. When goods are exported from the United States, United States exporters would get a rebate of the value-added tax. The SMA’s position, however, is controversial even in the steel industry because of the complexities and problems involved with value-added taxes.

Trade Policy

¹⁷ Compact, *ibid.* at p.2. See also the “Exceptions Standard” established in section 4.9.4 (p.17).

¹⁸ Dan Reynolds, “U.S. Steel chairman warns about emissions cap,” *Sacramento Business Journal* May 16, 2007. <http://www.bizjournals.com/sacramento/stories/2007/05/14/daily28.html>

¹⁹ 2005-2006 Public Policy Statement, *op.cit.*, p. 16.

²⁰ World Trade Organization, International Trade Statistics http://www.wto.org/english/res_e/statistics_e/its2005_e/its05_toc_e.htm

²¹ 2005-2006 Public Policy Statement *Op. Cit.* p. 14.

Many factors influence worldwide competition in the steel industry: operational efficiency, governmental policies, access to transportation, costs, etc. These are inherently unequal. For example, the price of iron ore is \$5/ton in Romania and \$83/ton in the U.S.²² A variety of political issues and trade policies complicate the United States steel industry's ability to compete.

In the early 2000's, the U.S. steel industry confronted artificially cheap steel imports that flooded into the United States due to foreign subsidies and undervalued currencies. Several steel companies went bankrupt, and there was massive consolidation. Consequently the steel industry is now more heavily concentrated among a few extremely large firms than it was just a few years ago. A new steel giant emerged in European-based Mittal with operations in Asia, Europe, North America, South America, and Africa.

The European Union is one of the United States' largest competitors in steel production. The SMA argues that the European Union is not more competitive than the United States in world markets but has better access to Asia and other European countries and favors trade policies that protect their steel industry. From 1994-2004, the U.S. imported 322 million tons of steel while the European Union imported only 216.5 million tons. Although the U.S. exported 8 million tons of steel in 2004, it imported 33.4 million tons.²³

One issue affecting the international steel trade is currency undervaluation. Since 2001, the dollar has declined 35 percent against the Euro but has declined far less among such major Asia currencies as those of China and Japan. In order to keep their currencies below market levels, these countries have bought dollars and invested in U.S. Treasury bonds to keep the dollar at a higher value. The undervaluation of the Chinese Yuan allows Chinese products to undersell those of the United States. This "currency manipulation," as it has been dubbed in the United States, makes Chinese exports less expensive and imports to China more expensive. In order to offset this unnatural advantage, the SMA argues that the dollar needs to fall lower or, conversely, for Chinese currency to rise above its artificially depressed value.²⁴ In May 2006, China did allow its currency to increase in value by 0.1 percent, but the impact on the steel industry was minimal.

Some steel industry officials downplay the importance of currency undervaluation, at least as it affects the U.S. steel industry now. While China produces 26 percent and consumes 27 percent of the world's steel²⁵ – thus being the largest market in the world – it consumes most of what it produces. This situation is likely to continue at least in the short term. Chinese steel imports to

²² Meeting Minutes of the Indiana Commission on State Tax and Financing Policy (October 13, 2005), p. 3 (citing information presented by Gui Aus of Mittal Steel USA).

<http://www.in.gov/legislative/interim/committee/minutes/STFP8AD.pdf>

²³ 2005-2006 Public Policy Statement (2005). *Op. Cit.*, pp. 7-12.

²⁴ The SMA's position is presented at

<http://waysandmeans.house.gov/hearings.asp?formmode=printfriendly&id=2898>.

²⁵ "Promoting participation of developing countries in dynamic and new sectors of world trade: Steel and related specialty products" (United Nations Conference for Trade and Development) (September 12, 2005), p.10, Table 6.

http://www.unctad.org/en/docs/c1em28d4_en.pdf

the U.S., according to these officials, are too small to threaten the U.S. steel industry at present. Yet imports of Chinese standard pipe ballooned by over 2600 percent from 2002 to 2004.²⁶

Representatives Pete Visclosky and Mike Pence have both been before the International Trade Commission to discuss the Indiana steel industry. The International Trade Commission has been reviewing antidumping and countervailing duties on stainless steel sheet from France, Germany, Japan, the United Kingdom, Taiwan, and other countries.

In December 2005, President Bush went against the advice of the International Trade Commission by rejecting the imposition of tariffs and quotas on Chinese exports of steel pipe to the United States. Standard steel tubing imports from China have increased in the U.S. from 10,000 tons in 2002 to over 380,000 tons in 2005. In early 2007, it was reported that U.S. Steel and Arcelor Mittal had idled furnaces, respectively, at their Gary and Indiana Harbor East plants. The furnaces were idled because of a drop in demand attributed to delayed orders and to cheaper imports. In December 2006, the price of U.S. sheet steel fell to a thirteen-month low.²⁷ Moreover in May 2007, China announced that it would not reduce subsidies on tube steel and pipe products, “making it the only sector in the finished steel industry that would not see an elimination or reduction in Chinese rebates.”²⁸

Representative Pete Visclosky of the 1st district became chair of the Congressional Steel Caucus, a bipartisan group of members of the U.S. House of Representatives, in January 2007. In March 2007, he and thirty-one other members of the Caucus endorsed a bill known as the Nonmarket Economy Trade Remedy Act. The bill, which has been referred to the House Ways and Means Committee, would require the Department of Commerce to place duties on steel ‘dumped’ in the U.S. market, primarily by China.²⁹

Congressman Mike Pence of the 6th district has a different perspective. Years ago, he testified in favor of duties on imported steel. But in early 2005, he spoke in favor of eliminating them. His argument was twofold. First, the steel industry has substantially recovered from its weak position of a few years ago. Second, import duties lead to higher prices and those higher prices raise the costs of many other industries and are often passed on to the consumer. Indiana has multiple industries, not merely the production of steel. Higher steel prices put pressure on every industry that depends on steel, including car manufacturing³⁰ and the making of auto parts. Two auto supply manufacturers, Dana Corporation and ArvinMeritor, have plants in Pence’s district. Higher costs of production (including steel) have put these and other suppliers in jeopardy.³¹

Nevertheless in June 2007, Indiana’s U.S. Representatives Dan Burton (R), Mark Souder (R), Joe Donnelly (D), and Baron Hill (D) joined Rep. Visclosky in filing a petition urging action

²⁶ “Visclosky to Bush: Stop the Outsourcing of American Steel Jobs to China” (press release of Congressman Pete Visclosky) (December 1, 2005). http://www.house.gov/apps/list/press/in01_visclosky/Pipe_Tube.html

²⁷ “Northwest Indiana Steel Furnaces Remain Idle,” *Inside Indiana Business*, January 19, 2007.

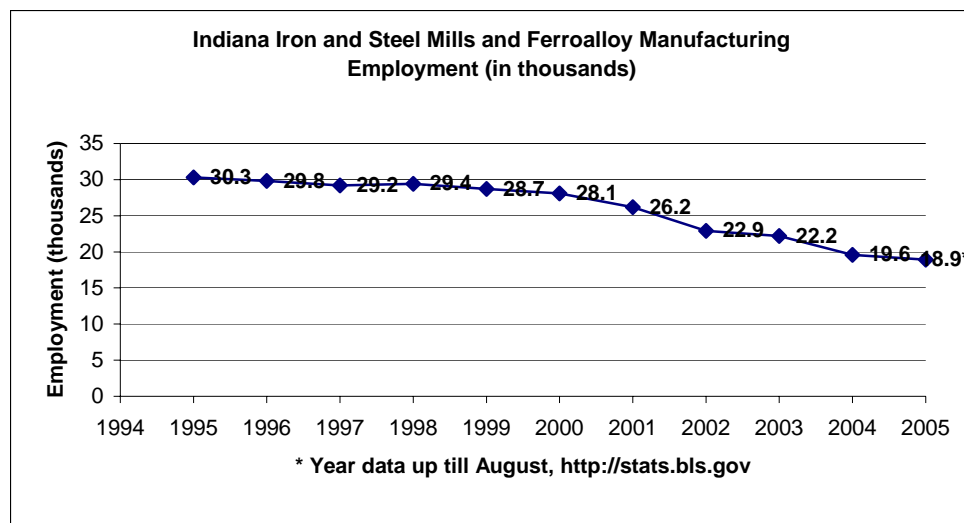
²⁸ *Indiana Legislative Insight*, May 21, 2007.

²⁹ See “Chinese Steel Floods U.S. Market,” *Howey Political Report*, March 13, 2007.

³⁰ See Andrea Holecek, “Auto vs Steel: Every Cost Counts,” *Times of Northwest Indiana* (Oct. 15, 2006). <http://www.indianaeconomicdigest.net/main.asp?SectionID=31&SubSectionID=110&ArticleID=29897>

³¹ “Pence testifies to trade commission on steel” (testimony before International Trade Commission) (Project Vote Smart) (April 26, 2005).

against



Chinese
currency

manipulation.³² Ironically a major Senate bill designed to address Chinese currency manipulation was proposed two weeks later, on the same day that the U.S. Department of Treasury released a report consistent with its previous reports denying that China was manipulating its currency.³³ Indiana Senator Evan Bayh, who chairs the Senate Committee on Banking, Housing, and Urban Affairs Subcommittee on Security and International Trade and Finance, has also made Chinese currency manipulation a leading economic issue.³⁴

From March 2002 – December 2003, there was a trade tariff on the steel industry. The cost to the U.S. economy was approximately \$400 million in lost wages, \$350 million in business revenue, \$75 million in federal taxes, and \$40 million in state and local taxes. An estimated 10,000 jobs nationwide were lost due to the steel restrictions.³⁵ After the restrictions were lifted, the United States steel industry has shown robust signs of growth.

II. Foreign Competition and Economic Climate

Industry Employment

The US Bureau of Labor Statistics projected that from 2002-2012, employment in iron and steel mills would decrease by 20 percent. As demonstrated in the figure below, there has been a negative trend in iron and steel mill employment for a decade. From 2002-2005 alone, employment decreased by 17.5 percent in Indiana.

According to the Bureau of Labor Statistics, employment across the steel industry may continue to decline as consolidation and technological improvements increase in the steel-making industry. In addition, the number of jobs for unskilled labor might decrease as employers seek more people with two-year mechanical or electrical degrees. Engineers, computer scientists, business majors, and skilled production workers will find the most opportunities in the steel industry.³⁶

³² [Indiana Legislative Insight](#), June 4, 2007.

³³ Ian Swanson, "Senators unveil long-awaited bill on China," [The Hill](#), June 14, 2007. <http://thehill.com/leading-the-news/senators-unveil-long-awaited-bill-on-china-2007-06-14.html>

³⁴ "Bayh yuan, get yuan fee?," [Indiana Legislative Insight](#), August 13, 2007.

³⁵ "Steel Import Restrictions Cost Economy, Port Says," [The Waterways Journal](#), Jan. 15-21, 2007. <http://www.waterwaysjournal.net/news011507.htm>

³⁶ U.S. Dept. of Labor, Bureau of Labor Statistics. <http://stats.bls.gov/oco/cg/cgs014.htm>.

Foreign Competition and Economic Climate

Since the 1990's, many steel companies have gone bankrupt and there has been general consolidation in the industry around a small number of large, financially stable firms. Although total industry employment has trended downward, modernization and improved worker productivity have led to an increase in profits for the industry in general. The United States is now the lowest-cost producer of various types of steel. Although China consumes virtually all the steel it produces, its steel production drives up the cost of raw materials (iron ore, coke, and scrap metal) worldwide.

III. Future Outlook of the Indiana Steel Industry

Indiana's chief foreign competition in the steel industry is from the European Union, Japan, South America, and Russia. Indiana's niche is making high-grade steel. Other countries make cheaper steel of a lower quality or steel for the commodity market. China is a long-term threat to the United States steel industry, but at present its competition seems to be focused on markets outside of Indiana.

One hopeful sign is that Indiana-made steel was shipped through Ports of Indiana-Burns Harbor in June 2007, bound for Spain. That was the first steel shipment through the port in two years. The ship loaded 11,000 tons of steel coils from Mittal Steel.³⁷

Despite challenges faced during the past several decades, the Indiana steel industry remains a vital component of the state's economy, both as an employer and as a supplier to other industries (e.g. the automotive industry).

IV. Conclusion

The Indiana steel industry has reached a position of relative strength and stability after a period of uncertainty and turmoil. Nevertheless there are still challenges. Rising energy costs, increasing prices for raw materials, and intense international competition will continue to be important issues, despite the healthy market for steel products from the United States.

Several proposals have been made by steel industry advocates for making the industry stronger in Indiana and giving it a greater presence abroad. These include:

- Designating more of Indiana roads "heavy duty highways" to accommodate the transportation of steel to customers and markets.
- Passing through the federal Manufacturers' Deduction for Indiana income tax purposes.

More broadly, the regulatory and tax policies of the State of Indiana have important implications for Indiana's steel industry. A business-friendly posture on both counts is necessary for the

³⁷ "Ports of Indiana Ships First Load of Indiana-Made Steel Since 2005," *Inside Indiana Business*, June 12, 2007. <http://www.insideindianabusiness.com/newsitem.asp?ID=23814>

continued success of Indiana's steel companies. The administration's Major Moves transportation plan, the creation of the Northwest Indiana Regional Development Authority, and other important regulatory changes made to date provide a favorable climate for Indiana's steel industry to prosper.

APPENDIX: Profiles of Current Indiana Steel Companies

Steel Dynamics

Steel Dynamics, INC	Headquarters: Fort Wayne, IN		
Total Employment	Total Sales (\$mm)	3 yr growth	Total Assets (\$mm)
3,490	3,239	108%	2,247

Source: Steel Dynamics 2006 Annual Report and Form 10-K

Flat Roll Division, Butler, IN

Employment 527

Manufactures cold rolled ultra thin steel & hot-mill steel; galvanizing services

Structural and Rail Division, Columbia City, IN

Employment 350

Manufactures structural products, wide flanged beams, piling, and casting. This mill is the only structural steel plant in the Midwest.

Bar Products Division, Pittsboro, IN

Employment 328

Structural Steel Manufacturing

Galvanizing facility, Jeffersonville, IN

Employment 43

Steel Processing/Fabricating Equip

New Millennium Building Systems, Lake City, FL

Joist-and-deck fabricating

Roanoke Electric Steel, recently acquired

Roanoke, Virginia

Manufactures angles, channels, beams and other products for steel service centers

Steel Dynamics, which is headquartered in Ft. Wayne and was founded in 1993, is the fifth largest producer of carbon steel products in the United States. The company has several Indiana mills with electric arc furnaces.

In March 2007, Steel Dynamics announced that it would invest \$35 million to increase the capacity of its Pittsboro plant by 50 percent. Steel Dynamics acquired Pennsylvania-based The Techs in July 2007. The Techs was a flat-rolled-steel galvanizing company with three facilities.

AK Steel

AK Steel	Headquarters: Middletown, OH		
Total Employment	Total Sales (\$mm)	3 yr growth	Total Assets (\$mm)
7,000	6,069	16%	5,518

Source: AK Steel 2006 Annual Report

Rockport Works AK Steel, Rockport, IN

Employment 110

Finishes hot rolled flat steel; continuous roll, pickling, annealing & galvanizing services

AK Steel is ranked 376 in the Fortune 1000 and was named by Fortune magazine as one of America's most admired companies.

Although headquartered in Ohio, AK Steel has seven steel-making and finishing plants in Indiana, Kentucky, Ohio, and Pennsylvania. AK Steel specializes in flat-rolled carbon steels as well as specialty stainless and electric steels. Rockport Works is located in Indiana on the Ohio River. With more than 1.75 million square feet of building, Rockport Works operates a high-tech carbon and stainless steel finishing operation. In September 2006, AK Steel-Rockport was awarded the U.S. Senate Productivity Award for 2005 and was listed in IndustryWeek magazine as one of the top 10 Best Plants in North America³⁸.

U.S. Steel

US Steel	Headquarters: Pittsburgh, PA		
Total Employment	Total Sales (\$mm)	3 yr growth	Total Assets (\$mm)
44,000	15,715	12%	10,586

Source: U.S. Steel 2006 Annual Report

³⁸ See <http://www.industryweek.com/ReadArticle.aspx?ArticleID=12658&SectionID=43>.

Gary Works. Gary, IN
Employment 5,100

United States Steel Midwest, Portage, IN
Employment 988

U.S. Steel has an annual raw steel production of about 20 million tons domestically. The corporation is the second biggest steel producer in the United States. Despite being headquartered in Pittsburgh, U.S. Steel has long had a major presence in Indiana.

Gary Works, located on the south shore of Lake Michigan, is U.S. Steel's largest manufacturing plant. Capable of making and finishing steel, Gary Works produces 7.5 million tons of steel/year. Alongside Gary Works is East Chicago Tin, a finishing facility that produces 600,000 tons of tin products. In addition, there is U.S. Steel Midwest in Portage, Indiana, which finishes tin products and serves automotive, construction, and container markets.

Arcelor Mittal

Arcelor Mittal Steel Company	Headquarters: Luxembourg		
Total Employment	Total Sales (\$mm)	3 yr growth	Total Assets (\$mm)
330,000 in 2005	58,870	N/A	112,166

Source: Arcelor Mittal 2006 Annual Report

International Steel Group Burns Harbor, Burns Harbor, IN
Employment 3,800
Steel products manufacturer

ISG Indiana Harbor Inc, East Chicago, IL
Employment 5,576
Annual Sales \$300 million
Manufactures basic carbon steel products & flat rolled sheets

In the summer of 2006, Mittal Steel, the largest steel company in the world, acquired Arcelor, the second-largest steelmaker, giving the consolidated entity 3 ½ times the output of its next largest competitor. The branding for the ArcelorMittal was launched in June 2007.

Mittal Steel USA has four operations in Indiana: two in northwest Indiana, and two steel-finishing plants in New Carlisle that are run in a joint venture with Nippon Steel Corp. The Burns Harbor facility is the most modern integrated mill in the United States and has ideal access to railroads, water ports, and highways. Primarily, the Burns Harbor facility makes hot-rolled, cold-rolled, and coated-sheet steel products. Mittal Steel also operates Burns Harbor Plate, which produces 800,000 tons of 160" plates and 200,000 tons of 110" plates. The Indiana Harbor facility in East Chicago operates five blast furnaces and has raw steelmaking capability of 10 million tons/year. This facility was the previous Inland Steel Plant. The East Chicago plant also houses Mittal's USA Research Center laboratory, which tests and evaluates materials and processes that Mittal uses in its operations with the intent of making stronger and more durable steel.

In January 2007, Mittal announced \$26 million in upgrades to its plants at Burns Harbor and Indiana Harbor Works. Mittal and Nippon announced in March 2007 that they would double the automotive sheet capacity at the New Carlisle facility in order to meeting the increased demand from Toyota Motor Co. and Honda Motor Co. Toyota has two Indiana plants. Honda is building a major plant in Greensburg, Indiana. In late 2007, Mittal planned to reopen its plate mill, closed in the early 2000's, that is located within the U.S. Steel complex in Gary. Mittal also proposed a new landfill, subject to local and state approval, to store sludge emanating from the Burns Harbor facility.

Nucor Corporation

Nucor Corp	Headquarters: Charlotte, NC		
Total Employment	Total Sales (\$mm)	3 yr growth	Total Assets (\$mm)
11,900	15,800	30%	7,885

Source: Nucor Corporation 2006 Annual Report

Nucor Building Systems Corp, Waterloo, IN

Employment 236

Manufacturers carbon steels and provides pre-engineered buildings

Nucor Steel, Crawfordsville, IN

Employment 300

Flatroll steel

Nucor Fastener, St. Joseph, IN

Employment 217

Manufacturer of standard and metric hex head cap screws, flat washers, bolt assemblies, finished hex nuts, and structural nuts. Products are sold to the automotive, machine tool, farm, and construction industries.

Vulcraft, St. Joseph, IN

Employment 400
Manufactures steel joists and joist girders

Nucor Corporation is the third largest steel producer in the United States, with three different types of facilities in Indiana: Vulcraft, Steel, and Building Systems. Nucor has one Vulcraft facility at St. Joseph, Indiana, which produces steel joists, joist girders, and steel deck. Total production among the seven Vulcraft facilities is more than 685,000 tons of steel joist and joister girders/year. 430,000 tons are produced/year at the six facilities which make steel deck. The Nucor Steel Crawfordsville mini-mill produces hot-rolled and cold-rolled sheet steel using a thin-slab process at low capital cost. Also at this facility Nucor uses a breakthrough technology of strip casting, which directly casts a mold from the steel without additional hot or cold rolling. Nucor Building Systems operates a plant in Waterloo, Indiana. At this facility, complete metal building packages can be customized and combined with other building materials. Total production from the three facilities of Building Systems is 145,000 tons/year.

In September 2006, the Environmental Protection Agency cited Nucor's Crawfordsville plant for exceeding federal limits on carbon monoxide.

CSN

Brazilian-based CSN operates a fully-integrated steel processing facility in Terre Haute. At this 18-acre plant, CSN operates a continuous pickle line, two-stand reversing cold mill, hot-dip galvanizing line, hydrogen batch annealing, temper mill, and a coil slitter. CSN offers value-added flat rolled steel products.

In October 2006, Wheeling-Pittsburgh announced that it would buy CSN's North American assets, making the Terre Haute plant a subsidiary of the new holding company.

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